# 510(k) Submission, Arterial Filter with GBS™ Coating Gish Biomedical, Inc., Rancho Santa Margarita, CA 92688

### **Summary**

K023833

This summary of 510(k)-safety and effectiveness information is being submitted in accordance with the requirements of 21 CFR part 807.92.

#### 1. Company making the submission:

|            | Company                | or | Correspondent (contract):   |
|------------|------------------------|----|-----------------------------|
| Name:      | Gish BioMedical, Inc.  |    | Delphi Consulting Group     |
| Address:   | 22942 Arroyo Vista     |    | 11874 South Evelyn Circle   |
|            | Rancho Santa Margarita |    | Houston, TX 77071-3404      |
|            | CA 92688-2600          |    |                             |
| Telephone: | 949-635-6240 voice     |    | 713-723-4080 voice          |
| ,          | 949-635-6294 fax       |    | 208-694-6953 fax            |
| Contact:   | Edward F. Waddell      |    | harvey@delphiconsulting.com |
|            | Director RA/QA         |    | J. Harvey Knauss            |
|            |                        | İ  | Consultant                  |

#### 2. Device:

| Proprietary Name:    | Gish Arterial Filter with GBS™ Coating             |
|----------------------|--|
| Common Name:         | Arterial Filter                                    |
| Classification Name: | Arterial Line Blood Filter, Cardiopulmonary Bypass |

#### 3. Predicate Devices:

Gish Arterial Filter, Gish Biomedical, Inc., K914791.

#### 4. Classifications Names & Citations:

21 CFR 870.4260, Arterial Line Blood Filter, Cardiopulmonary Bypass, Class II, DTM, Cardiovascular.

#### 5. Description:

The Gish Arterial Filter with GBS™ Coating is designed for use as the final filtration product in the arterial line of the extracorporeal bypass circuit. The top of the filter housing contains a vent port to assist in the priming and removal of air from the arterial filter.

The components of this system which have contact with the fluid path are sterile and nonpyrogenic.

A filter bypass line may be used to enable blood to bypass the arterial filter should higher than normal pressures be observed on the inlet side of the arterial filter.

A four-way stopcock is also provided for placement on the vent port of the arterial filter.

All materials of the arterial filter are biocompatible and coated with a proprietary coating.

The Gish Arterial Filter with GBS™ Coating may be purchased separately or pre-connected with tubing and other components of an extracorporeal circuit.

#### 6. Indications for use:

The GISH arterial filters are indicated for use in the extracorporeal bypass circuit for the removal of microemboli. It is designed to operate at flow rates of one (1.0) to six (6.0) liters per minute for periods up to six (6.0) hours.

#### 7. Contraindications:

For heparin coated devices, heparin has been reported, on rare occasions, to induce thrombocytopenia. Since patients undergoing cardiopulmonary bypass are routinely systemically heparinized, and although the amount of heparin contributed by this device is very small in comparison to the typical dose given, caution should be exercised when using this device in patients with known or suspected heparin sensitivity.

#### 8. Comparison:

The Gish Arterial Filter with GBS™ Coating has the same device characteristics as the predicate devices.

#### 9. Test Data:

The Gish Arterial Filter with GBS™ Coating has been subjected to extensive safety, performance, and validations prior to release. Final testing for the systems includes various performance tests designed to ensure that the device meets all of its functional requirements and performance specifications. Safety tests have further been performed to ensure the device complies with applicable industry and safety standards.

#### 10. Literature Review:

A review of literature pertaining to the safety and effectiveness has been conducted. Appropriate safeguards have been incorporated in the design of Gish Arterial Filter with GBS<sup>TM</sup> Coating.

#### 11. Conclusions:

The conclusion drawn from these tests is that Gish Arterial Filter with GBS™ Coating is equivalent in safety and efficacy to its predicate device.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

## MAR 3 1 2003

Gish Biomedical, Inc. c/o Mr. J. Harvey Knauss Delphi Consulting Group 11874 South Evelyn Circle Houston, TX 77071

Re: K023833

Arterial Filter with GBS™ Coating Regulation Number: 21 CFR 870.4260

Regulation Name: CPB Arterial Line Blood Filter

Regulatory Class: Class II (two)

Product Code: DTM Dated: February 5, 2003 Received: February 6, 2003

Dear Mr. Knauss:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

#### Page 2 – Mr. J. Harvey Knauss

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050. This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4646. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97) you may obtain. Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/dsma/dsmamain.html

Sincerely yours,

Bram D. Luckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

| 510(k) Number K   |
|---|
| Device Name: Arterial Filter with GBS™ Coating  |
| Indications for use:  |
| The GISH arterial filters are indicated for use in the extracorporeal bypass circuit for the removal of microemboli. It is designed to operate at flow rates of one (1.0) to six (6.0) liters per minute for periods up to six (6.0) hours. |
| Prescription Device:  |
| Federal Law (US) restricts this device to sale by or on the order of a physician.   |
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| PLEASE DO NOT WRITE BELOW THIS LINE- CONTINUE ON ANOTHER PAGE IF NEEDED)  |
| Concurrence of CDRH. Office of Device Evaluation (ODE)  |
| ,   |
| Prescription Use OR Over-The-Counter Use  |
| (Division Sign-Off) Division of Cardiovascular Devices 510(k) Number K023833  |
| (Per 21 CFR 801.109)  |